

APPENDIX Q

ECOSYSTEM REPRESENTATION

Table Q-1 shows the number of acres of each ecosystem found in the wilderness study areas in the Garnet Resource Area.

The following is a brief description of each ecosystem represented in the areas under study. These ecosystems are from *Bailey-Kuchler Ecosystem Classification System* (Kuchler 1964 and USDA, FS 1976).

DOUGLAS-FIR FOREST (*Pseudotsuga*)

Physiognomy. Medium dense forest of medium tall needleleaf evergreen trees.

Dominants. Douglas-fir (*Pseudotsuga menziesii*).

Other Components. *Abies concolor*, *Larix occidentalis*, *Physocarpus malvaceus*, *Picea pungens*, *P. glauca* (northern part), *Pinus contorta*, *P. ponderosa* (lower elevations), *Populus tremuloides*.

Occurrence. Northern Rocky Mountains and Washington.

WESTERN SPRUCE, FIR FOREST (*Picea*, *Abies*)

Physiognomy. Dense to open forests of low to medium tall needleleaf evergreen trees; open forests with a synusia of shrubs and herbaceous plants.

Dominants. Subalpine fir (*Abies lasiocarpa*); Englemann spruce (*Picea engelmannii*).

Other Components. *Arctostaphylos uva ursi*, *Arnica cordifolia*, *Calamagrostis canadensis*, *Carex* spp., *Larix lyallii*, *Menziesia ferruginea*, *Pinus albicaulis* (northern part), *P. contorta*, *Populus tremuloides*, *Pseudotsuga menziesii* (lower elevations), *Shepherdia canadensis*, *Symphoricarpos albus*, *Tsuga mertensiana* (western part), *Vaccinium* spp., *Xerophyllum tenax*.

Occurrence. High altitudes of northern Rocky Mountains and Washington.

ALPINE MEADOWS AND BARREN (*Agrostis*, *Carex*, *Festuca*, *Poa*)

Physiognomy. Usually short grasses and sedges, dense to very open with extensive barren areas; many forbs.

Dominants. Bentgrass (*Agrostis* spp.); sedges (*Carex* spp.); hairgrass (*Deschampsia caespitosa*); fescue (*Festuca viridula*); woodrush (*Luzula spicata*); mountain timothy (*Phleum alpinum*); bluegrass (*Poa* spp.); spike trisetum (*Trisetum spicatum*).

Other Components. *Achillea* spp., *Antennaria* spp., *Aquilegia* spp., *Arenaria* spp., *Castilleja* spp., *Draba* spp., *Erigeron compositus*, lichen spp., *Oxyria digyna*, *Pentstemon fruticosus*, *Phacelia* spp., *Phlox caespitosa*, *Polemonium* spp., *Polygonum* spp., *Potentilla diversifolia*, *Potentilla* spp., *Salix nivalis*, *Salix* spp., *Saxifraga* spp., *Selaginella* spp., *Sibbaldia procumbens*, *Sieversia turbinata*, *Solidago* spp.

Occurrence. Rocky Mountains, Cascade Range, Sierra Nevada.

As part of the Roadless Area Review and Evaluation II (RARE II) process, the Forest Service examined all wilderness and wilderness study areas in the United States for ecotype representation. They then assigned regional ecotype targets as a means of balancing ecotype representation. The highest target would have at least six wilderness areas of a specific ecotype.

The Forest Service lists six wilderness units either presently in the system or administratively endorsed representing the Douglas-fir Forest (011) ecotype; nine units in the Western Spruce, Fir Forest (014) ecotype; and five units of the Alpine Meadows and Barren (045) ecotype. They identified 76 Douglas-fir Forest; 109 Western Spruce, Fir Forest; and 5 Alpine Meadows and Barren units as potential additions to the National Wilderness Preservation System (NWPS).

As the region is well represented in the system, there is no necessity to designate these BLM study areas as wilderness solely to balance ecotype diversity.

TABLE Q-1
ECOSYSTEMS FOUND IN THE WILDERNESS
STUDY AREAS IN THE GARNET RESOURCE AREA

Area Name	Acres of Douglas-fir Forest (011)	Acres of Western Spruce, Fir Forest (014)	Acres of Alpine Meadows and Barren (045)
Wales Creek	4,361	6,534	685
Hoodoo Mountain	1,418	7,127	2,977
Gallagher Creek	1,235	3,088	934
Quigg West	373	25	122